



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/604,677

06/27/2000

Katsuhiko Kishimoto

3693-8

3677

23117

7590

01/02/2004

NIXON & VANDERHYE, PC
1100 N GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201-4714

EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/604,677

Applicant(s)

KISHIMOTO, KATSUHIKO

Examiner

Dung Nguyen

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Applicant's amendment dated 10/06/2003 has been received and entered.

By the amendment, claims 1-6 and newly added claims 8-11 are now pending in the application.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-2, 6 and newly added claims 8-11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al., US Patent No. 5,726,728, as stated in the previous office action.

Although claim 1 and newly added claim 9 are now amended, such amendment of "wall structures" (e.g., the wall structures surround and define regions having a shape of a polygon having dulled corners as viewed from above and/or an interior perimeter of a portion of the wall structure is in the shape of the polygon having dulled corners as viewed from above) is not sufficient to overcome its rejection in the previous office action. In addition, regarding claims 8 and 10-11, Kondo et al. do disclose liquid crystal molecules in the plurality of liquid crystal region are aligned axially symmetrically with respect to an axis vertical to a surface of the substrate (see figure 8B).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 3-5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al., US Patent No. 5,726,728, in view of Applicants' admitted prior art, figures 9(a)-9(i), as stated in the previous office action.

Response to Arguments

5. Applicant's arguments filed 10/06/2003 have been fully considered but they are not persuasive.

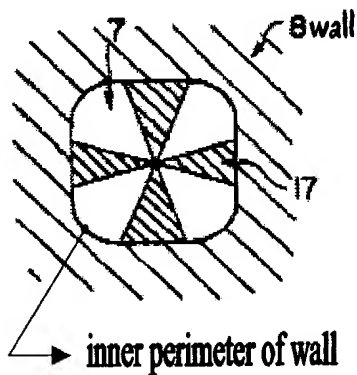
Applicant's responses are as follow:

- a. Kondo fails to disclose or suggest the aforesaid aspect of claims 1 and 9, i.e., the wall structures surround and define regions having a shape of a polygon having dulled corners as viewed from above (claim 1) and/or an interior perimeter of a portion of the wall structure is in the shape of the polygon having dulled corners as viewed from above (claim 9). In particular, Kondo illustrates the outer perimeter of a liquid crystal region, not an inner perimeter portion of a wall.
- b. There is no motivation for defining a radius of curvature R recited in claims 3-4.
- c. There is no suggestion in the cited art for the alleged modification and not obvious by the unexpected results of the invention in claim 5.
- d. An IDS filed 09/19/2000 has not yet indicated consideration.

Art Unit: 2871

Examiner's responses are as follow:

- a. Kondo et al. do disclose that liquid crystal region (7) surrounded by wall structures (e.g., polymeric walls 8) as shown in figures 13A-13B. The Examiner agrees that the liquid



crystal region (7) might not the same shape as the inner perimeters of walls (8) (e.g., Kondo et al., figures 24A-24B); however, in case of figures 13A-13B (reproduced to the left) the wall structures (8)

having a shape of polygon with dulled corners as

viewed from above (part around liquid crystal region 7). In other words, Kondo et al. do disclose an interior perimeter of the walls (8) in the shape of the polygon having dulled corners as viewed from above. Therefore, the limitation of claims 1 and 9 met.

- b. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as stated in part (a), Kondo et al. do disclose the wall structures surround and define regions having a shape of a polygon having dulled corners as viewed from above, so that an interior perimeter of a portion of the wall structure is in the shape of the polygon having dulled corners as viewed from above. Therefore, one skilled in the art would be able to merely find a

Art Unit: 2871

radius of curvature R as stated in the previous office action. Accordingly, the modification to Kondo et al. would have been obvious to one skilled in the art as stated above.

- c. It should be noted that the use of the negative photosensitive resin to form a wall structure, as asserted by Applicant (see Background of the Invention, page 2, line 23), is a common practice in the art. Therefore, it would have been obvious to one of ordinary skill in the art to use one of conventional material over another merely on the desire of the manufacturer, i.e., using a negative photosensitive resin to form a wall structure, so that forming an axially symmetrically aligned microcell to improve a viewing-angle in an LCD device. In other words, such motivation would render the claimed invention at least obvious to one skilled in the art.
- d. Applicant stated that an IDS has been filed 09/19/2000; however, such IDS has not yet received by the office.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Ibaraki et al. (JP 63-64023) disclose a display device in which a wall structure (11) having a polygon shape with dulled corners (see figure 1(a) and 1(b)).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2871

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 703-305-0423. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

DN
12/29/2003



Dung Nguyen
Patent Examiner
Art Unit 2871